

**PROCESS FOR THE PRODUCTION OF ULTRAFINE  
PLATE-LIKE ALUMINA PARTICLES**

**ABSTRACT OF THE DISCLOSURE**

A process for producing plate-like alumina particles with a high aspect ratio is described. Nano-sized particles of an aluminium precursor compound, optionally formed by milling, are mixed with a sufficient volume fraction of a diluent and heat treated to form substantially discrete plate-like alpha alumina particles dispersed in the diluent. A mineraliser may be added to lower the effective melting point of the system. Substantially discrete plate-like particles may be formed without agitation when the heat treatment is conducted below the melting point of the diluent.